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Inventors: **Schuetz et al.**
Serial No.: **09/947,619**
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REMARKS

Claims 1-38 are pending in the instant application. Claims 33-38 have been withdrawn from consideration by the Examiner and subsequently canceled without prejudice by Applicants herein. Claims 1-32 have been rejected. Claims 5-7 have been objected to. Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, 20, 21, 23, 26, 27, 30 and 31 have been amended. Support for these amendments is provided in the specification at pages 37-46, in Figures 3 and 5 and in the teachings of Example 3 at page 79-80 and the amended sequence listing provided herewith. No new matter is added by these amendments. Reconsideration is respectfully requested in light of these amendments and the following remarks.

I. Finality of Restriction Requirement

The restriction requirement mailed March 25, 2003 has been made final. Thus, in an earnest effort to advance the prosecution of this case, Applicants have canceled without prejudice non-elected claims 33-38. In light of the finality of this Restriction Requirement, however, Applicants reserve the right to file a divisional application to the canceled subject matter.

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II. Objection to Claims 5 through 7

Claims 5 through 7 have been objected to under 37 C.F.R. 1.75(c) as being in improper multiple dependent form. Thus, in an earnest effort to advance the prosecution of this case, Applicants have amended these claims to refer to other claims in the alternative only. Withdrawal of this objection is therefore respectfully requested.

III. Objection to Specification

The specification has been objected to for containing embedded hyperlinks and other forms of browser-executable code. Further, the Examiner suggests that the trademarks GENBANK, BIGDYE and QUANTITY ONE must be capitalized. Accordingly, in an earnest effort to advance the prosecution of this case, Applicants have amended the specification to deactivate an embedded hyperlinks and to capitalize trademarks. No new matter is added by these amendments. Entry of these amendments and withdrawal of these objections is therefore respectfully requested.

IV. Compliance with Sequence Listing Rules

The Examiner suggests that the specification contains sequence disclosure that are encompassed by the definitions for

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nucleotide and/or amino acid sequences set forth in 37 C.F.R. 1.821(a) and (a)(2). In particular, the Examiner suggests that the descriptive material at the bottom of Table 4 contains sequences not present in the Sequence Listing and which have not been provided with identifiers.

Accordingly, in an earnest effort to advance the prosecution of this case, Applicants have reviewed the entire specification and are providing an amended Sequence Listing herewith inclusive of nucleotide and/or amino acid sequences requiring sequence identifiers. Specifically, Applicants have amended the Sequence Listing to include sequence taught in the description under Table 4 which were not previously included in the sequence listing and to include the normal sequences of the mismatches set forth in Figures 3 and 5. A paper copy and CRF copy of the amended sequence listing as well as a Statement in accordance with 37 C.F.R. 1.821-1.825 are provided herewith. Further, Applicants have amended the specification to provide the assigned sequence identifiers from the amended sequence listing which correspond to the sequences taught in the specification and Figures. No new matter is added by these amendments as these sequences were all presented in the patent application as filed. Thus, entry of

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these amendments and withdrawal of this objection is respectfully requested.

V. Rejection of Claims 1-32 under 35 U.S.C. § 112, first paragraph - Lack of Written Description

Claims 1-32 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner suggests that while the claims refer to Genbank Accession No. AC005020, the specification does not actually recite the sequence that corresponded to Accession No. AC005020 at the time the instant invention was made. Thus, the Examiner suggests that since database Accession entries are not fixed, but rather changeable over time, the recitation of this Accession No. in the claims does not convey to one of skill in the art the sequence actually possessed by Applicants at the time the invention was made, the knowledge of which is required to practice the claim invention.

Applicants respectfully traverse this rejection since the revisions histories of GENBANK entries are publicly available and clearly provide one of skill with the same sequence applicants were in possession of at the time of filing the instant application.

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However, in an earnest effort to advance the prosecution of this case, Applicants have amended the claims to delete the GENBANK Accession No. reference, instead referring to nucleotide position 23 of SEQ ID NO:73 or nucleotide position 29 of SEQ ID NO:74, both of which were taught in the specification as filed in Figures 3 and 5, respectively and discussed in Example 3 at pages 79-80. The specification and Sequence Listing have also been amended to include reference to these SEQ ID NO:s and the nucleotide positions in these sequences corresponding to those identified for the GENBANK sequence in accordance with teachings of Figures 3 and 5. No new matter is added by these amendments.

Applicants were clearly in possession of the claimed nucleotide sequences. Further, the instant specification and its teachings clearly place the public in possession of these sequences as well.

Thus, the instant specification and the claims as amended meet the "essential goal" of the written description requirements of 35 U.S.C. § 112, first paragraph as set forth in MPEP § 2163.

Withdrawal of this rejection under 35 U.S.C. § 112, first paragraph, is therefore respectfully requested.

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VI. Rejection of Claims 1-32 under 35 U.S.C. § 112, first paragraph, Lack of Enablement

Claims 1-32 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirements. The Examiner suggests that each of the claims includes and requires the knowledge of the sequence set forth in GENBANK Accession No. AC005020. However the Examiner suggests that since the specification does not recite the sequence that corresponded to Accession No. AC005020 at the time the instant invention was made and the data Accession entries are changeable over time, it would require undue experimentation for one of skill in the art to use the claimed invention.

Applicants respectfully disagree since review of revision histories of a GENBANK entry to ascertain the exact sequence at the time of filing the instant application can be performed routinely by those skilled in the art and can hardly be considered undue.

However, in an earnest effort to advance the prosecution of this case, Applicants have amended the claims to delete the GENBANK Accession No. reference, instead referring to nucleotide position 23 of SEQ ID NO:73 or nucleotide position 29 of SEQ ID

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NO:74 both of which were taught in the specification as filed in Figures 3 and 5, respectively and discussed in Example 3 at pages 79-80. The specification and Sequence Listing have also been amended to include reference to these SEQ ID NO:s and the nucleotide positions in these sequences corresponding to those identified for the GENBANK sequence in accordance with teachings of Figures 3 and 5. No new matter is added by these amendments.

As the claims now refer to sequences taught in the specification upon filing and not changeable over time, no undue experimentation is required to practice the instant claimed invention.

Withdrawal of this rejection under 35 U.S.C. § 112, first paragraph is therefore respectfully requested.

VII. Rejection of Claims 1-32 under 35 U.S.C. § 112, second paragraph

Claims 1-32 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the Examiner suggests that claims 1-32 are indefinite over the recitation of Genbank Accession No. AC005020.

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Accordingly, in an earnest effort to advance the prosecution of this case, all references to this GENBANK Accession No. have been removed from the claims.

Further, the Examiner suggests that claims 1-7 are indefinite because it is unclear whether the claims are drawn to a method for "predicting the level and distribution of CYP3A5 expression" as recited in the preamble of claim 1, or to a method in which the presence of particular nucleotides are predictive of relative expression levels.

Thus, in an earnest effort to advance the prosecution of this case, Applicants have amended claim 1 to clarify that the method is predictive of CYP3A5 expression levels.

Claims 3 and 5-7 and 26-29 are also suggested to be indefinite for recitation of "exon 5" in claim 3 or "intron 3" in claim 26 instead of --exon 7--.

Applicants have thus amended claims 3 and 26 to correct these inadvertent typographical errors.

Claims 8-12 are also rejected as being indefinite because the Examiner suggests that it is unclear whether the claims are drawn to a method of "determining the cytochrome P450 3A5 (CYP3A5) genotype and phenotype of an individual," as recited in

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the preamble of claim 8 or to a method of analyzing the cytochrome P450 3A5 (CYP3A5) sequence," as recited in the final process step of the claim. In addition, claims 8-12 are suggested to be indefinite because it is unclear how steps (b) and (c) in claim 8 relate to one another. Specifically, the Examiner suggests that step (c) merely requires "analyzing the cytochrome P450 3A5 sequences and does not refer back to the molecule produced in step (b).

Thus, Applicants have amended claim 8 to clarify the relationship of steps (b) and (c) and the relationship of the sequencing in step (c) to determination of the cytochrome P450 3A5 genotype and phenotype of the individual as set forth in the preamble.

Claims 10 and 12 are suggested to be indefinite over recitation of the term "primer pairs" preceding a single pair of primers because the Examiner suggests that it is not clear whether the claims are drawn to the particular pair of primers recited or whether the use of the plural "pairs" is intended to suggest additional molecules. Applicants have thus amended the claims to refer instead to simply "primers" thus clarifying that the claims are drawn to the particular primers recited.

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Claims 11-12 and claims 16-19, claims 26-29 and claims 30-32 are suggested to be indefinite for lack of antecedent basis for the limitation "the nucleotide 30,597 point mutation" and the limitation "the PCR product" in step (b)(i) of claim 16 and 26 or step (d)(i) of claim 30, respectively. Accordingly, the claims have been amended to either remove the phrase or replace the term "the" before the phrase with the term --a--.

Claims 13-15, 20-22, 23-25 and 30-32 are suggested to be indefinite because the Examiner suggests that it is unclear whether steps (b) and (c) of claim 13, 20, 23 or 30 or steps (d) and (e) of claim 30 refer to a single amplification, or whether each step requires a separate amplification.

Accordingly, in an earnest effort to advance the prosecution of this case, Applicants have amended claims 13, 20, 23 and 30 to clarify the steps involved in amplification of the fragments. Support for this amendment is provided in the specification at page 37-46 wherein methods for amplification using X and Y and Z and W primers are described. Thus, no new matter is added by these amendments.

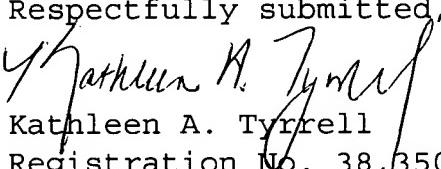
Applicants believe the above amendments and remarks overcome the outstanding rejections under 35 U.S.C. § 112, second

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paragraph. Withdrawal of these rejections under 35 U.S.C. § 112, second paragraph is therefore respectfully requested.

VIII. Conclusion

Applicants believe that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,

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Date: **July 20, 2004**

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